



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,498	08/28/2003	Angelo J. Suior	58811US002	6967
32692	7590	07/23/2007	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			LAMB, BRENDA A	
PO BOX 33427			ART UNIT	PAPER NUMBER
ST. PAUL, MN 55133-3427			1734	
NOTIFICATION DATE		DELIVERY MODE		
07/23/2007		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com
LegalDocketing@mmm.com

Office Action Summary	Application No.	Applicant(s)
	10/650,498	SUITOR ET AL.
	Examiner Brenda A. Lamb	Art Unit 1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 16 May 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1,2,4-8,17,18 and 20-24 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1,2,4-8,17,18 and 20-24 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1,2,4,8,17,18, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruutu et al (WO 01/38005) in view of Cox, Jr (US 3,007,608).

Ruutu et al teach an apparatus for coating a workpiece with a coating solution comprising a coating chamber in which the workpiece is coated, a coating solution supply container for supplying the coating solution to the coating chamber, a fluid connection fluidly connecting the coating chamber and the coating solution supply container such that coating solution is flowable or capable of flowing between the coating chamber and the coating solution supply container as depicted by the arrows in Figure 4 wherein the container is positionable to different elevations allowing coating solution to flow from the supply container to the coating chamber and vice versa, from

the coating chamber back to the supply container. Ruutu et al fail to teach the use of a deformable or collapsible bladder type coating solution supply container.

Cox, Jr teaches the design of a dispensing system which includes a removable deformable or collapsible supply container arranged in a support tank or carton that dispenses the liquid directly through the hose. Cox, Jr teaches at column 4 lines 44-58 that smooth or laminar flow occurs through the hose which acts as pouring spout to dispense liquid therefrom since Cox, Jr teaches the bag collapses as liquid is withdrawn and no gains from air admission occurs which would disturb the steady dispensing flow. Cox, Jr teaches tipping or tilting the removable deformable or collapsible supply container arranged in a support tank or carton to dispense the liquid therefrom (see column 6 lines 58-70)

Therefore, it would have been obvious to modify the Ruutu et al by substituting its supply tank assembly with a deformable or collapsible bladder dispensing supply system such as taught by Cox, Jr for the taught advantage of such a supply tank assembly— smooth or laminar flow through the dispensing hose.

With respect to claims 2 and 18, the deformable or collapsible bladder type system as set forth by Cox, Jr is deemed to be capable of being manually manipulated because the supply system is flexible and non-rigid so as to be collapsible. With respect to claims 4 and 20, the Ruutu et al apparatus as defined by the combination above results in an apparatus having a supply system mounted for movement between an upper and lower elevation. With respect to claims 8 and 24, the Ruutu et al apparatus

includes a valving mechanism (15) that enables coating fluid to flow from the coating chamber back in the direction to the supply container.

Claims 5, 7, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruutu et al (WO 01/38005) in view of Cox, Jr (US 3,007,608) and Cranskens et al (US 3,296,951).

The teachings of Ruutu et al and Cox, Jr are applied for the reasons noted above. Neither Ruutu et al or Cox, Jr teach or suggest a mechanism (i.e., plate) for deforming the supply container or bag to move the coating material to the coating chamber and which permits coating material to flow back to the coating supply container or bag. However, it was known in the art, at the time the invention was made, to use a plate to apply pressure to a collapsible or deformable supply bag to supply coating material to a coating chamber and the release of the plate to relieve pressure to enable coating material to flow back into the coating material supply bag as evidenced by Cranskens et al (US 3,296,951). In light of the teachings of Cranskens, it would have been obvious to one of ordinary skill in the art to provide, on a small scale, a pressure supply/release plate in communication with the plasma bag in the Ruutu coating apparatus as modified in the manner as discussed above in order to enable supply and removal of coating from material from the coating chamber.

Claims 5-7 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruutu et al (WO 01/38005) in view of Cox, Jr (US 3,007,608) and Takeuchi (US 5,882,735).

The teachings of Ruutu et al and Cox, Jr are applied for the reasons noted above. Neither Ruutu et al or Cox et al teach or suggest a mechanism that deforms the coating solution supply container to provide a motive force to move the solution between the coating chamber and the supply container for deforming the supply container or bag to move the coating material to the coating chamber and which permits coating material to flow back to the coating supply container or bag. However, it was known in the art, at the time the invention was made, to use a plate to apply pressure to a collapsible or deformable supply bag such as taught by Takeuchi to supply coating material to a coating applicator and obviously the release of the plate to relieve pressure to enable coating material to flow back into the coating material supply bag as shown in Figure 3A-3B. Alternatively, at the time the invention was made, to apply fluid pressure to a collapsible or deformable supply bag arranged in a holding chamber to supply coating material to a coating applicator and obviously the release of such fluid pressure would enable coating material to flow back into the coating material supply bag as shown by Takeuchi in Figure 2A-2B. Therefore, in light of the teachings of Takeuchi, it would have been obvious to one of ordinary skill in the art to provide, on a small scale, a pressure supply/release plate in communication with the plasma bag in the Ruutu coating apparatus as modified in the manner as discussed above in order to enable supply and removal of coating from material from the coating chamber. Alternatively, in light of the teachings of Takeuchi, it would have been obvious to one of ordinary skill in the art to provide, on a small scale, arrange the plasma bag in the Ruutu coating apparatus as modified in a holding chamber which is in selectively communication with

a fluid pressure the manner as discussed above in order to enable supply and removal of coating from material from the coating chamber.

Applicant's arguments filed 5/16/2007 have been fully considered but they are not persuasive.

Applicant's argument that there is no motivation in Ruutu to utilize a deformable coating solution supply container is found to be non-persuasive. Ruutu teaches the importance of reducing vibrations in his coating process and apparatus by making the coating solution flow laminar or smooth. Cox, Jr teaches the design of a dispensing system which includes a removable deformable or collapsible supply container arranged in a support tank or carton that dispenses the liquid directly through the hose. Cox, Jr teaches at column 4 lines 44-58 that smooth or laminar flow occurs through the hose which acts as pouring spout to dispense liquid therefrom since Cox, Jr teaches the bag collapses as liquid is withdrawn and no gains from air admission occurs which would disturb the steady dispensing flow. Cox, Jr teaches tipping or tilting the removable deformable or collapsible supply container arranged in a support tank or carton to dispense the liquid therefrom (see column 6 lines 58-70). Therefore, it would have been obvious to modify the Ruutu et al by substituting its supply tank assembly with a deformable or collapsible bladder dispensing supply system such as taught by Cox, Jr for the taught advantage of such a supply tank assembly— smooth or laminar flow through the dispensing hose.

Applicant's argument that Cox, Jr fails to teach flow of the fluids going back and forth into the thin plastic liner bag is found to be non-persuasive since it is not

commensurate in scope with claim language. The recitation in claim 1 and 17 the coating solution is flowable back and forth "between" the coating chamber and deformable coating solution supply container broadly reads on the flow of the coating solution occurring in the area between the coating chamber and deformable coating solution supply container which includes flow in the fluid connection element (arranged between the coating chamber and deformable coating solution supply container) but does not require flow of the coating solution back "into" the deformable coating supply container as argued by applicant.

In response to applicant's argument that Cox, Jr is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Cox. Jr is applied for teaching dispensing apparatus for dispensing liquids such there is smooth or laminar flow of liquids therein. Ruutu teaches the importance of reducing vibrations in his coating process and apparatus by making the coating solution flow laminar or smooth. Therefore, it would have been obvious to modify the Ruutu et al by substituting its supply tank assembly with a deformable or collapsible bladder dispensing supply system such as taught by Cox, Jr for the taught advantage of such a supply tank assembly— smooth or laminar flow through the dispensing hose.

Applicant's argument that Cox, Jr requires the presence of a rigid support tank such that the liner bag must be placed in the support tank before inversion and release

of the liquid and there is no claimed limitation in the present application directed to a rigid support tank is found to be non-persuasive since it is not commensurate in scope with claim language with the claims being open with the term "comprising" to a support tank.

Applicant's argument that there is motivation to combine the teaching of Ruuttu et al, Cox Jr and Cranskens et al is found to be non-persuasive. As discussed above, neither Ruuttu et al or Cox, Jr teach or suggest a mechanism (i.e., plate) for deforming the supply container or bag to move the coating material to the coating chamber and which permits coating material to flow back to the coating supply container or bag. However, the direction of fluid flow through the open valve in the Ruuttu et al fluid connection element, arranged between the coating chamber and the collapsible or deformable supply bag container would obviously be governed by the pressure differential between coating chamber and collapsible or deformable supply bag. Therefore, it was known in the art, at the time the invention was made, to use a plate to apply pressure to a collapsible or deformable supply bag to supply coating material to a coating chamber and the release of the plate to relieve pressure to enable coating material to flow back to the coating material supply bag as evidenced by Cranskens et al (US 3,296,951). Also, in light of the teachings of Cranskens, it would have been obvious to one of ordinary skill in the art to provide, on a small scale, a pressure supply/release plate in communication with the plasma bag in the Ruuttu coating apparatus as modified in the manner as discussed above in order to enable supply and removal of coating from material from the coating chamber. Note claims 5, 7, 21 and 23

do not require that the coating solution flow "into" the collapsible or deformable supply bag as argued by applicant rather requires that the coating solution flow "to" or in the direction of the collapsible or deformable supply bag.

Applicant's argument that Takeuchi fails to teach flow of the coating solution into the collapsible or deformable supply bag is found to be non-persuasive since it is not commensurate in scope with claim language with claims 5-7 and 21-23 not requiring that the coating solution flow "into" the collapsible or deformable supply bag as argued by applicant rather requires that the coating solution flow "to" or in the direction of the collapsible or deformable supply bag. However, the direction of fluid flow through the open valve in the Ruutu et al fluid connection element, arranged between the coating chamber and the collapsible or deformable supply bag container, would obviously be governed by the pressure differential between coating chamber and collapsible or deformable supply bag. Therefore, in light of the teachings of Takeuchi, it would have been obvious to one of ordinary skill in the art to provide, on a small scale, a pressure supply/release plate in communication with the plasma bag in the Ruutu coating apparatus as modified in the manner as discussed above in order to enable one to remove coating from the coating chamber by flowing the coating "to" or in the direction of the plasma bag through its fluid connection obviously by reducing the pressure of the fluid in the plasma bag such that the relative fluid pressure differential between the coating chamber and the plasma bag is reduced by retraction of the cited plate. Alternatively, in light of the teachings of Takeuchi, it would have been obvious to one of ordinary skill in the art to provide, on a small scale, to arrange the plasma bag in the

Ruuttu coating apparatus as modified in a holding chamber which is in selective communication with a fluid pressure in the manner as discussed above in order to enable removal or flow of coating from the coating chamber and "to" or in the direction of the plasma bag through its fluid connection via obviously by reducing pressure in the plasma bag and reducing the relative fluid pressure differential between the coating chamber and the plasma bag.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda A. Lamb whose telephone number is (571) 272-1231. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday with alternate Wednesdays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip Tucker, can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brenda A. Lamb
Brenda A Lamb
Examiner
Art Unit 1734